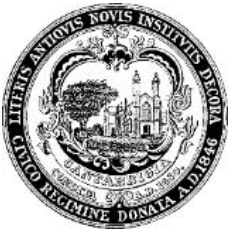


Porter Square Intersection Improvements

Community Meeting

January 18, 2018

**CDM
Smith**



CAMBRIDGE
CDD@344

CAMBRIDGE
DEPARTMENT
OF PUBLIC
**THE
WORKS**



Agenda

- Project History
- Project Scope
- Existing Conditions
- Proposed Design
- Community Feedback

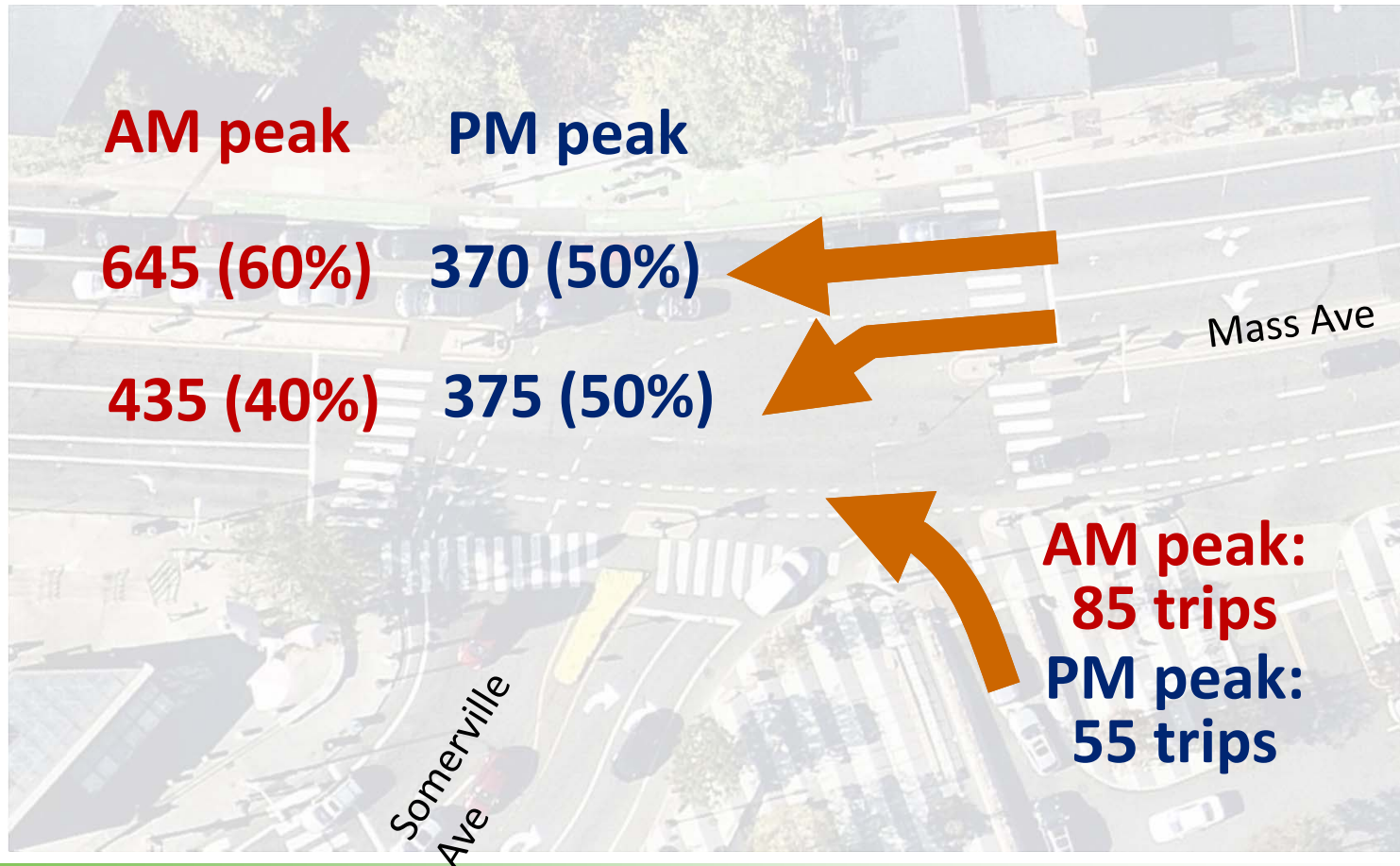


Project History

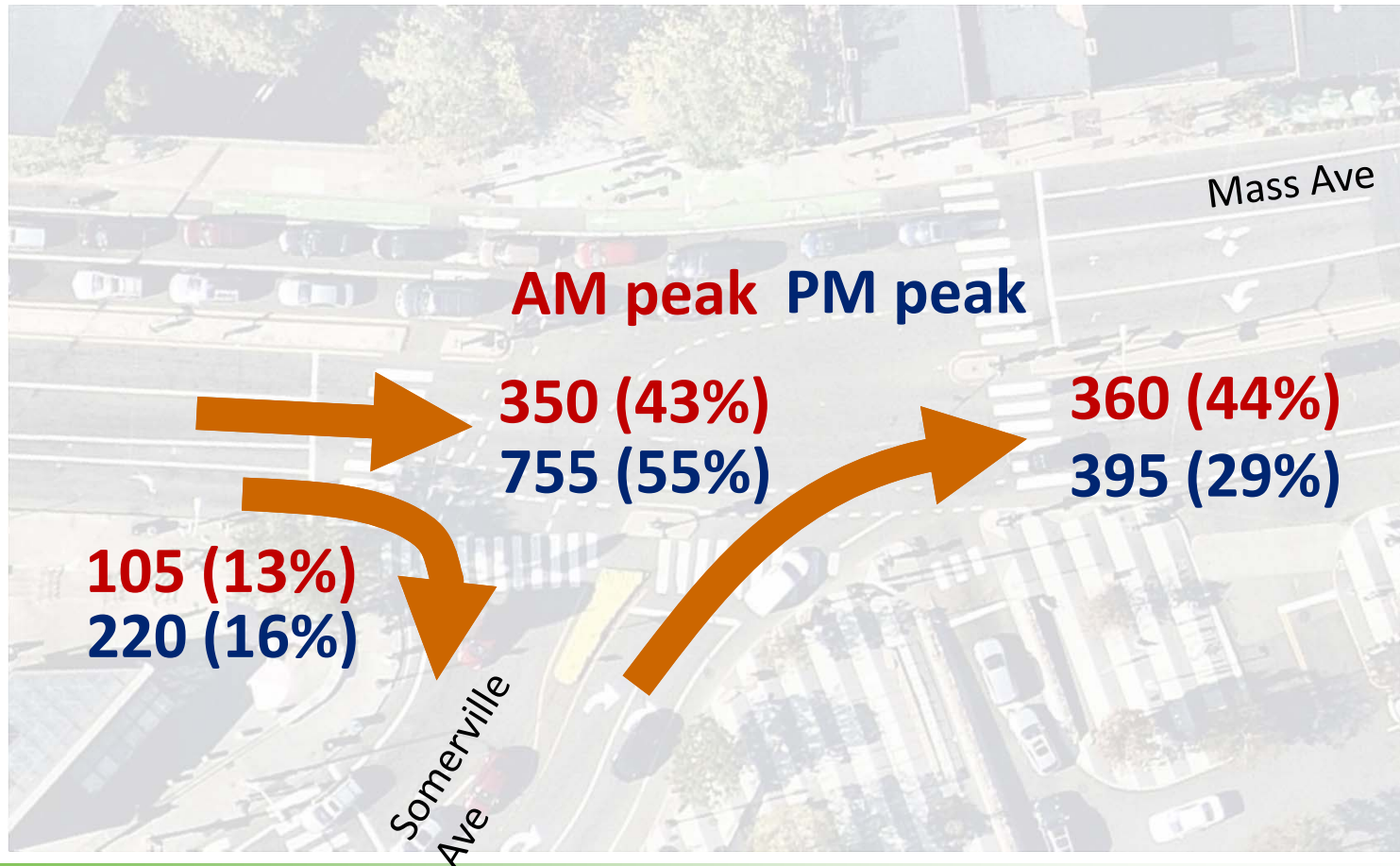
- Transportation Study - March 2016
- Operational Deficiencies
 - Bicyclist & Pedestrian Safety Concerns
 - Pedestrian Delay
 - Signal Phasing/Coordination
 - Mass Ave/Somerville Ave/White St with Upland St
 - Mass Ave Southbound Lane Configuration



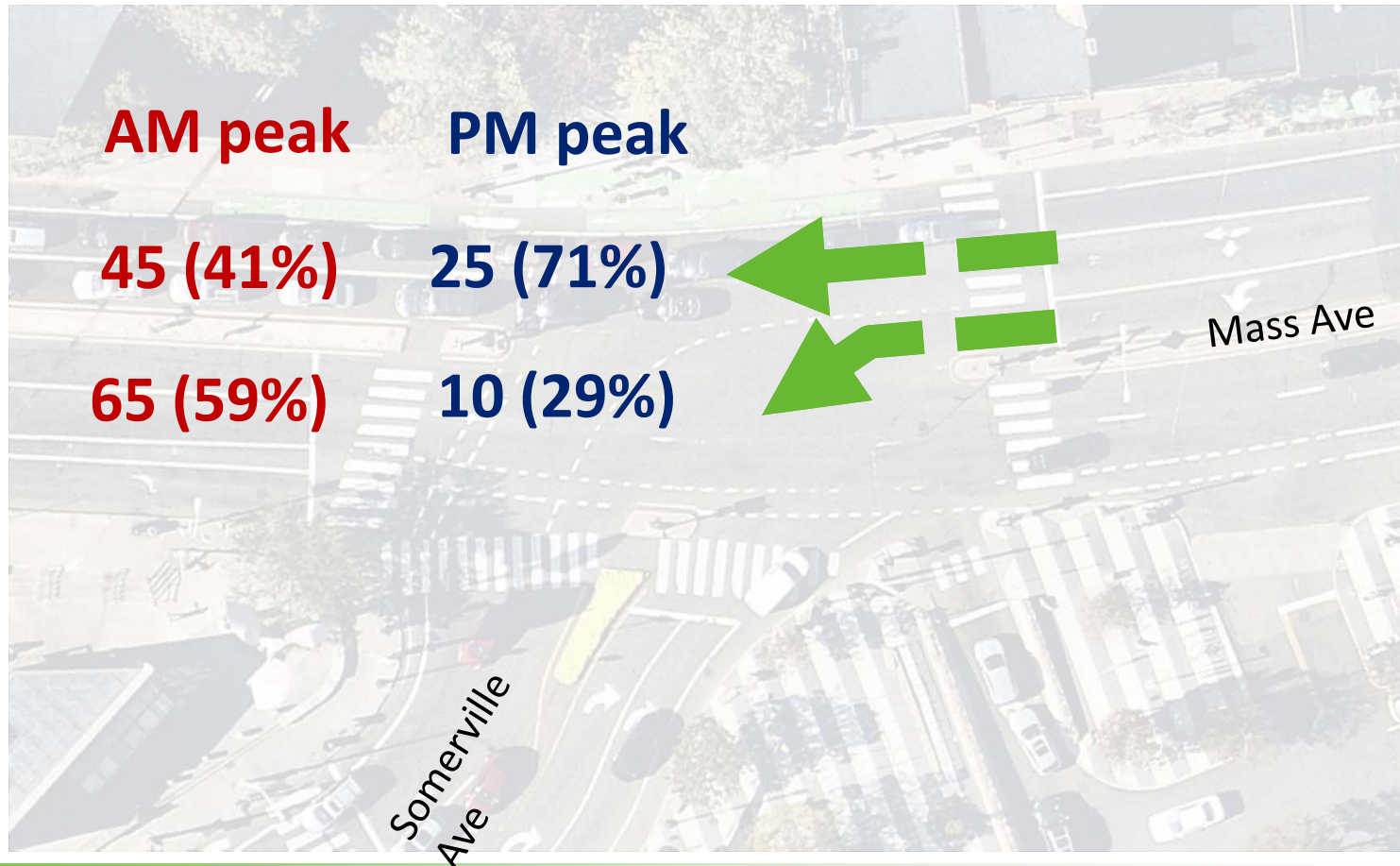
Traffic Volume: Motor Vehicle, Southbound



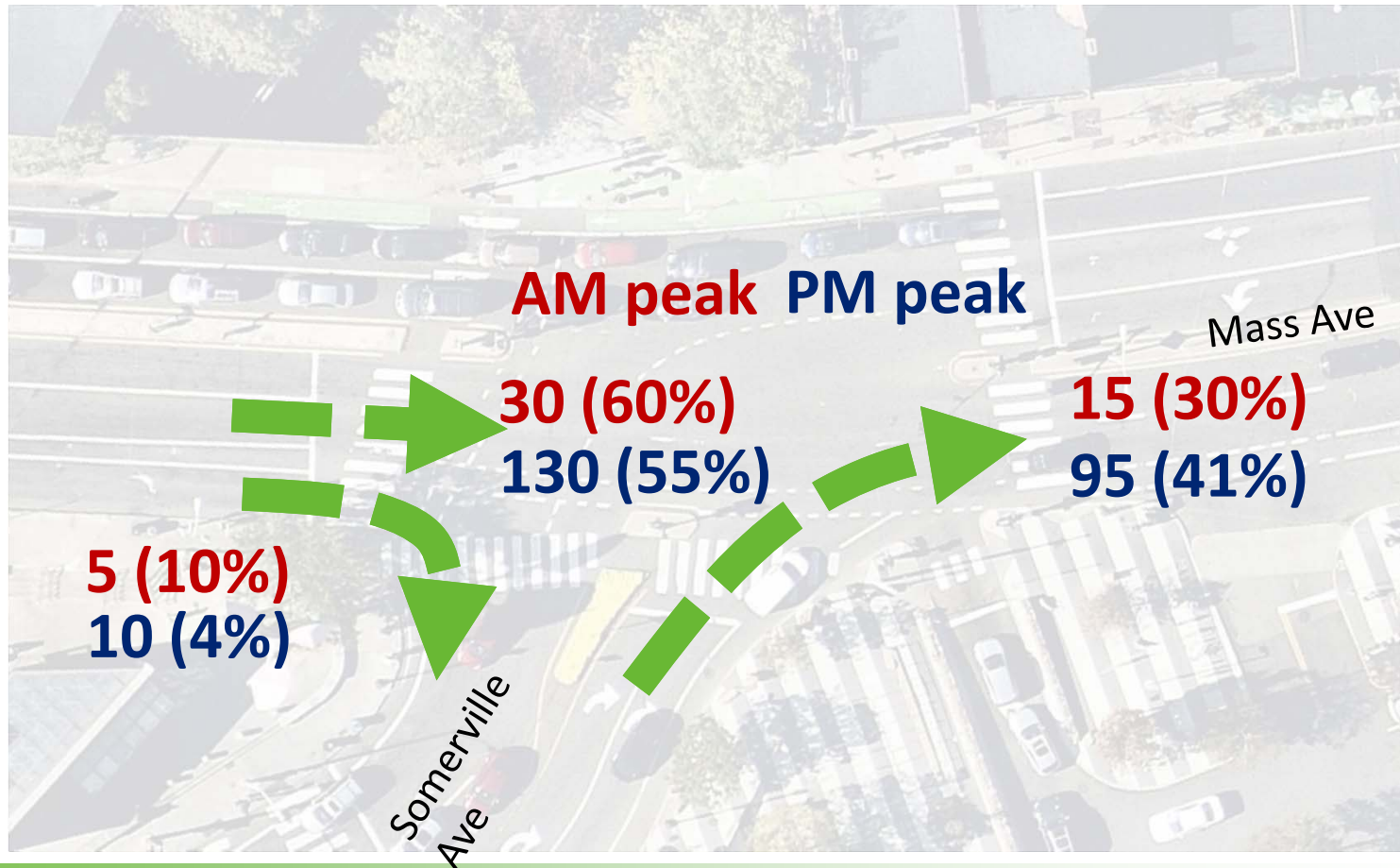
Traffic Volume: Motor Vehicle, Northbound



Traffic Volume: Bicycle, Southbound



Traffic Volume: Bicycle, Northbound



Crash History

- MassDOT crash data (2008-2012)
 - 62 total crashes
- Primarily angle or sideswipe crashes
 - 29 at Mass Ave/Somerville intersection
 - 6 at Somerville Ave/White intersection
 - 27 at Mass Ave/Upland intersection
 - 1 involving a pedestrian
 - 7 involving bicyclists
- 1 bicycle fatality in October 2016



Project Scope

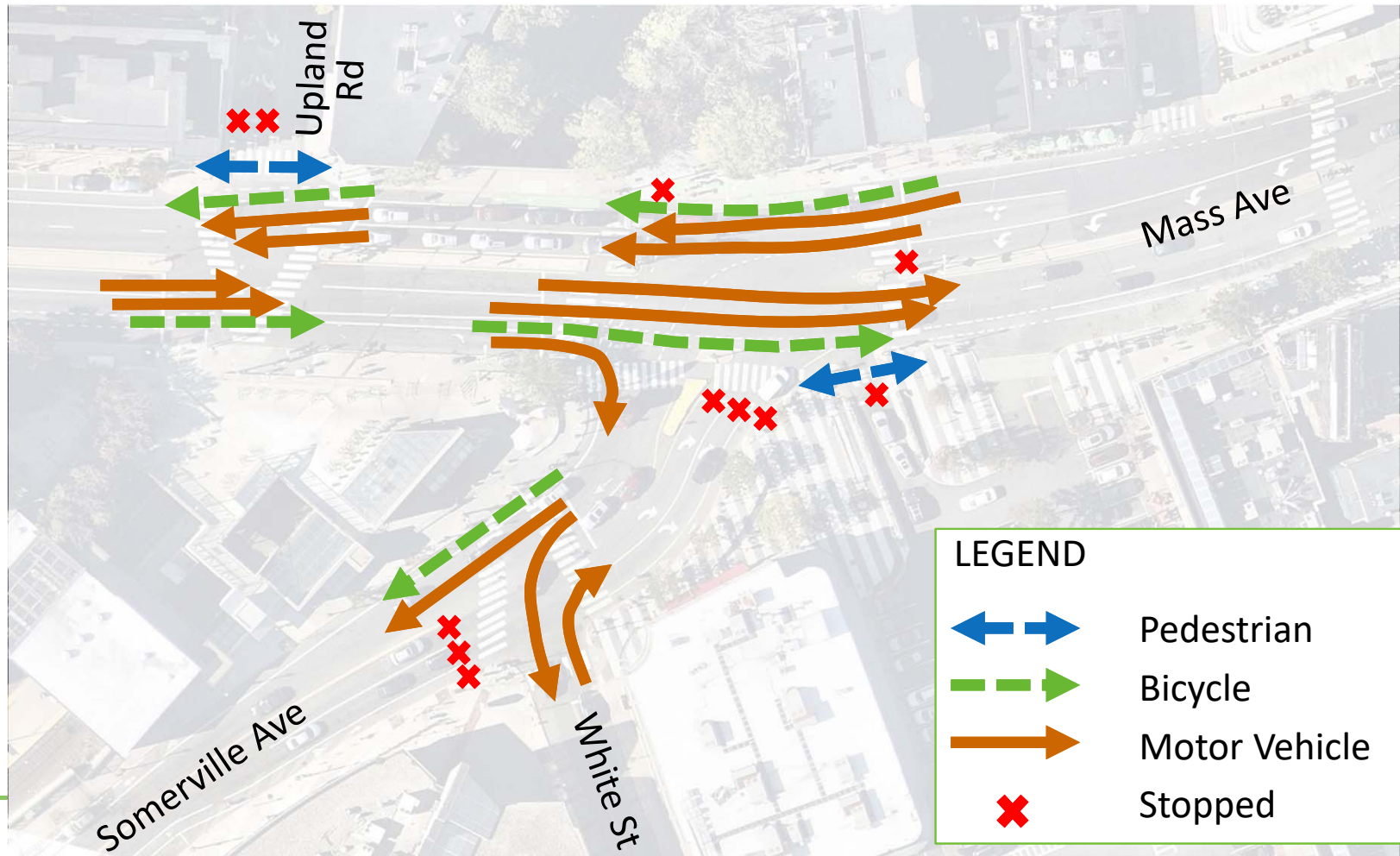
- Improve Safety for All Users
- Maintain Existing Curb to Curb Width
- Improve Traffic Signal Coordination
- Decrease Delay for All Users
- Simplify Signal Phasing



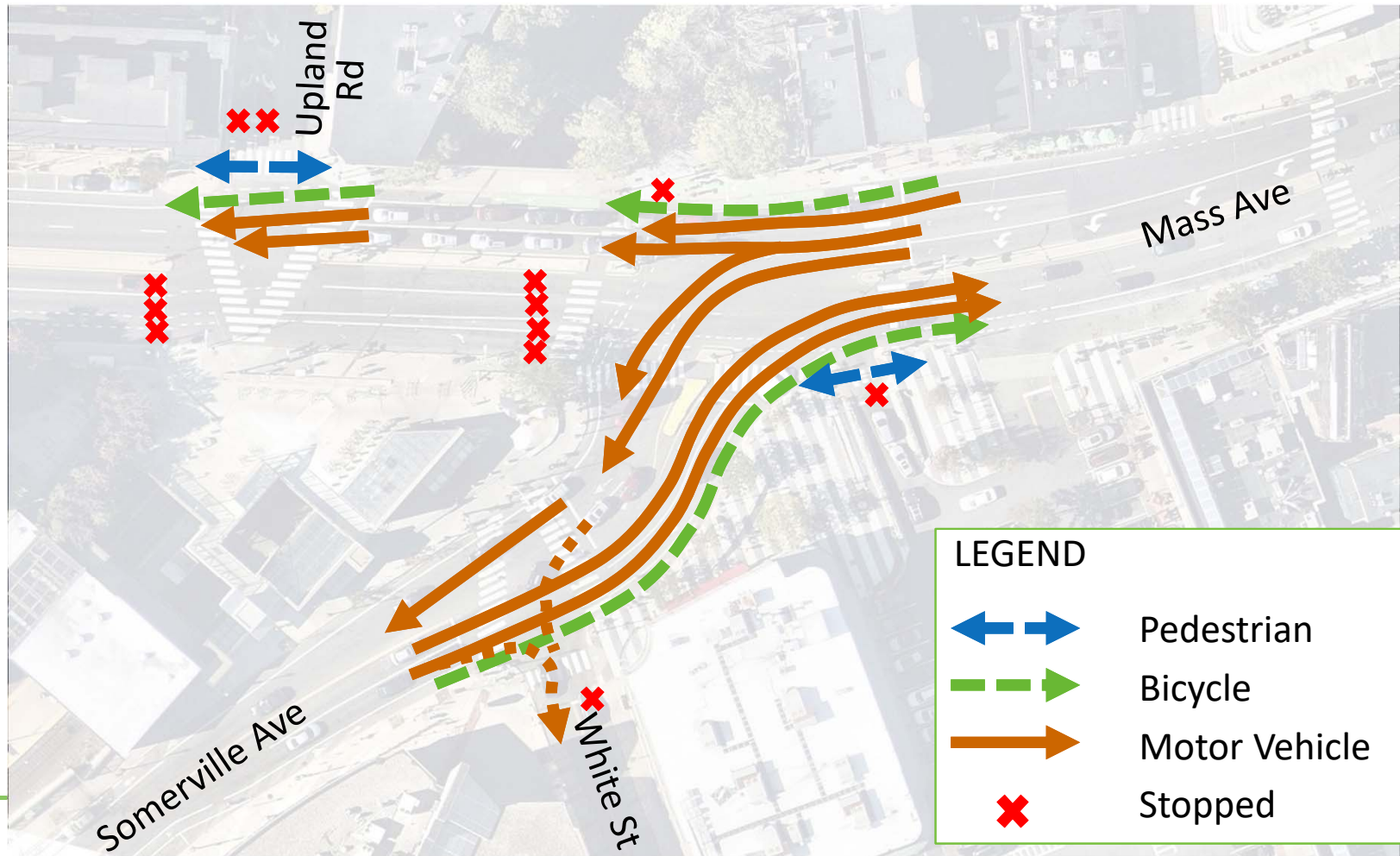
Existing Conditions



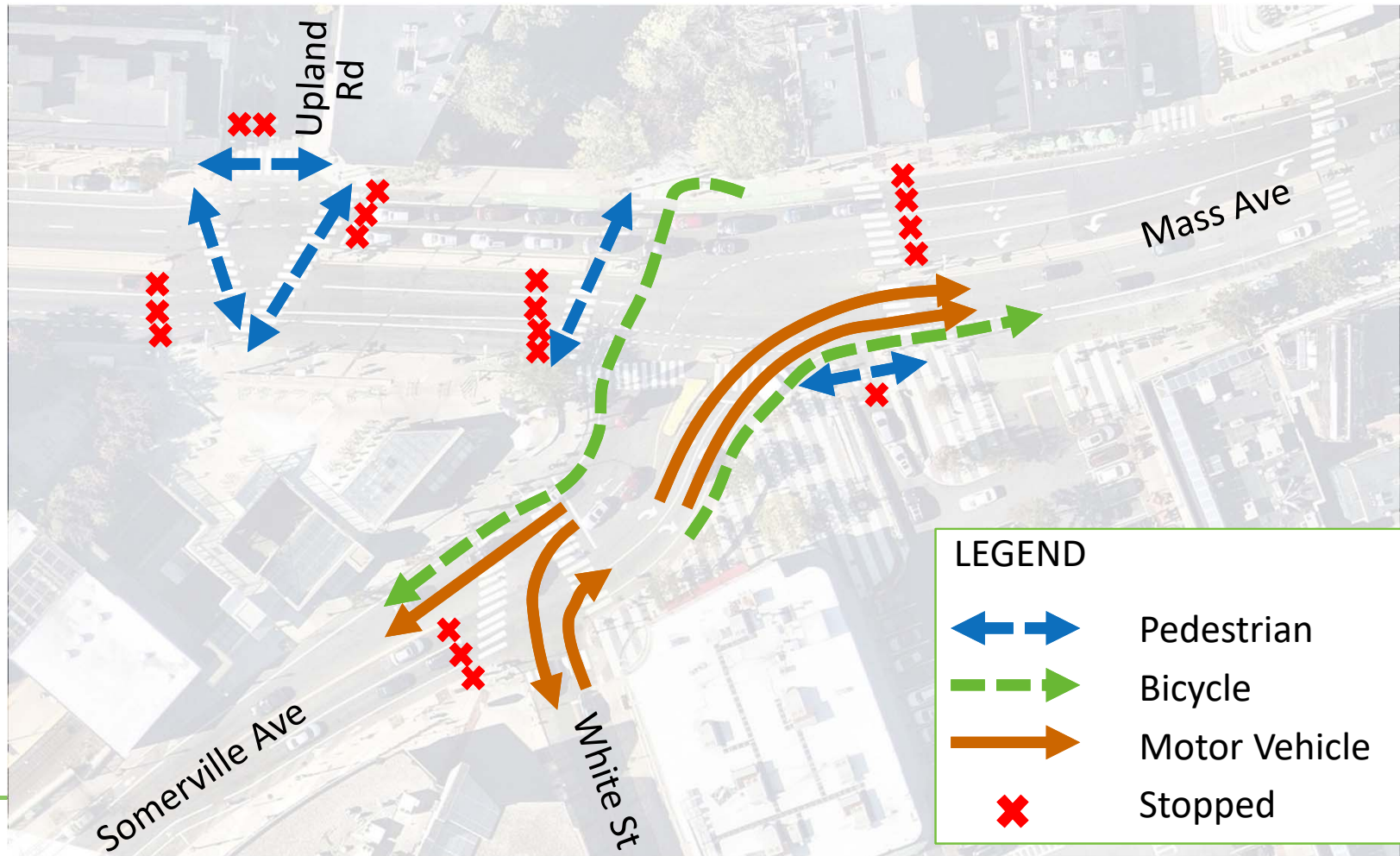
Existing Conditions – Phase 1



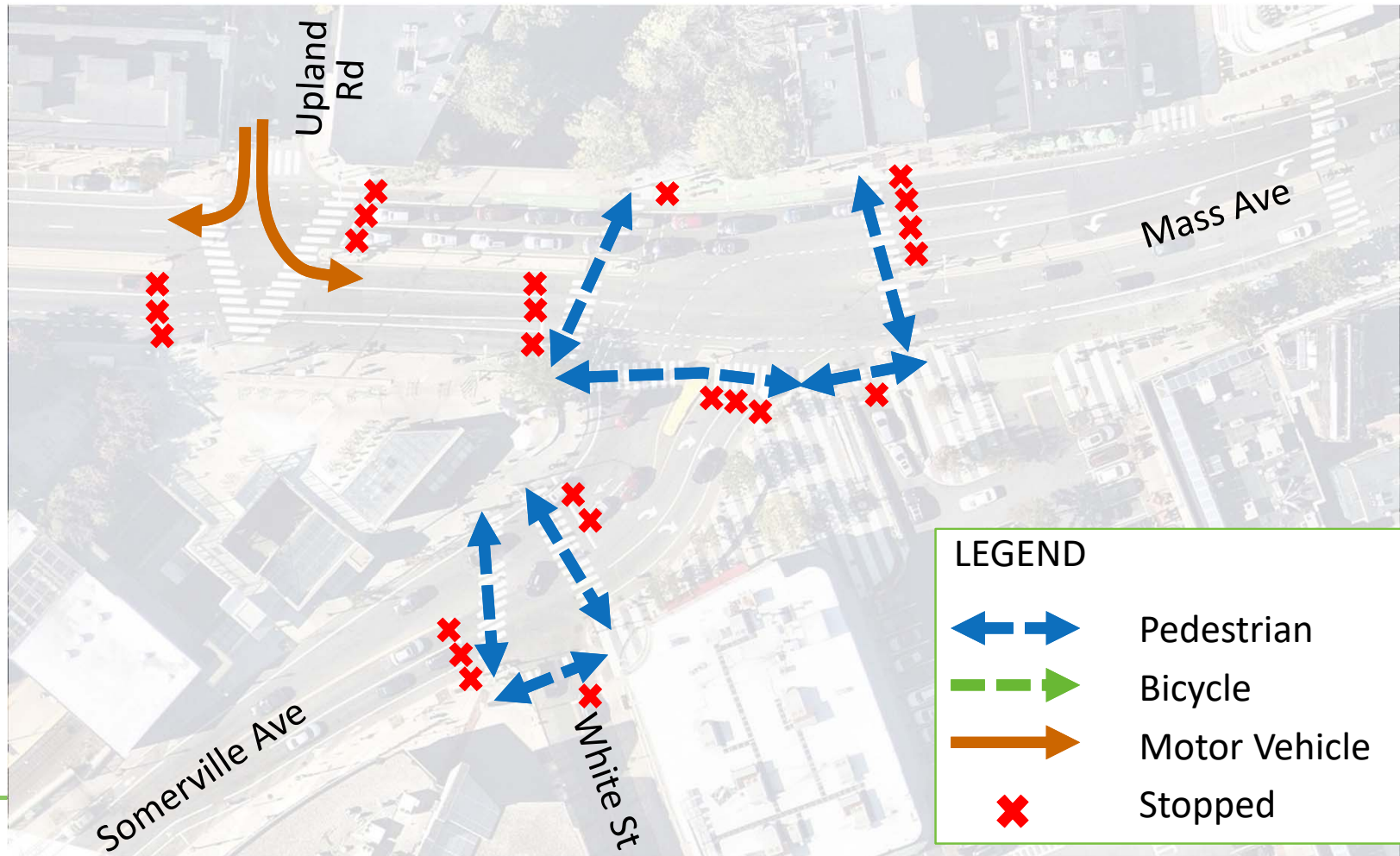
Existing Conditions – Phase 2



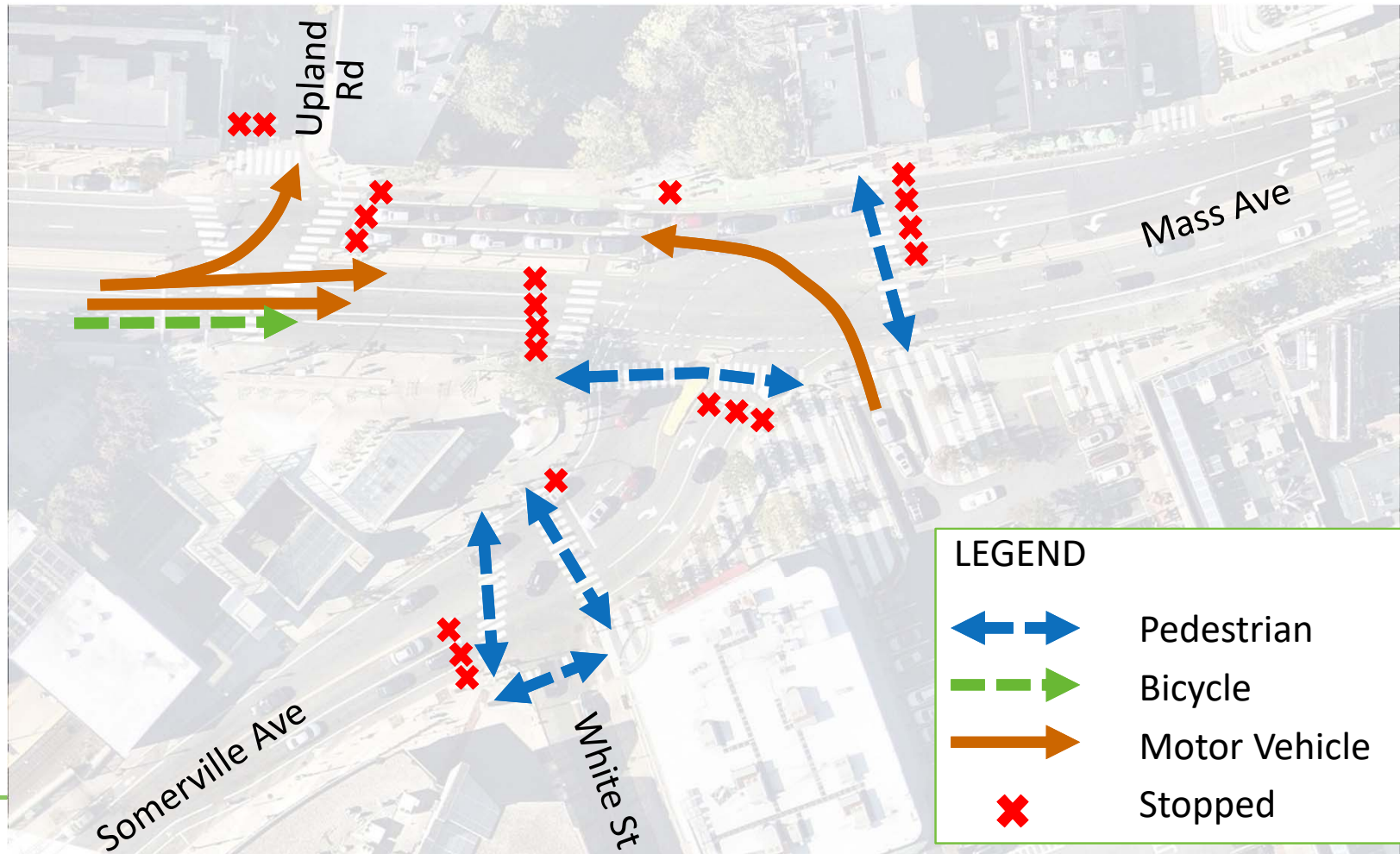
Existing Conditions – Phase 3



Existing Conditions – Phase 4



Existing Conditions – Phase 5



Proposed Design

- Three vs. Five Signal Phases
- Protected Concurrent Pedestrians and Bicyclists
- Mass Ave Southbound Lane Configuration
- Somerville Ave Left Turn onto Mass Ave
- Shopping Plaza Egress Relocated
- Enhanced Coordination between Mass Ave/Somerville Ave/White St and Upland St

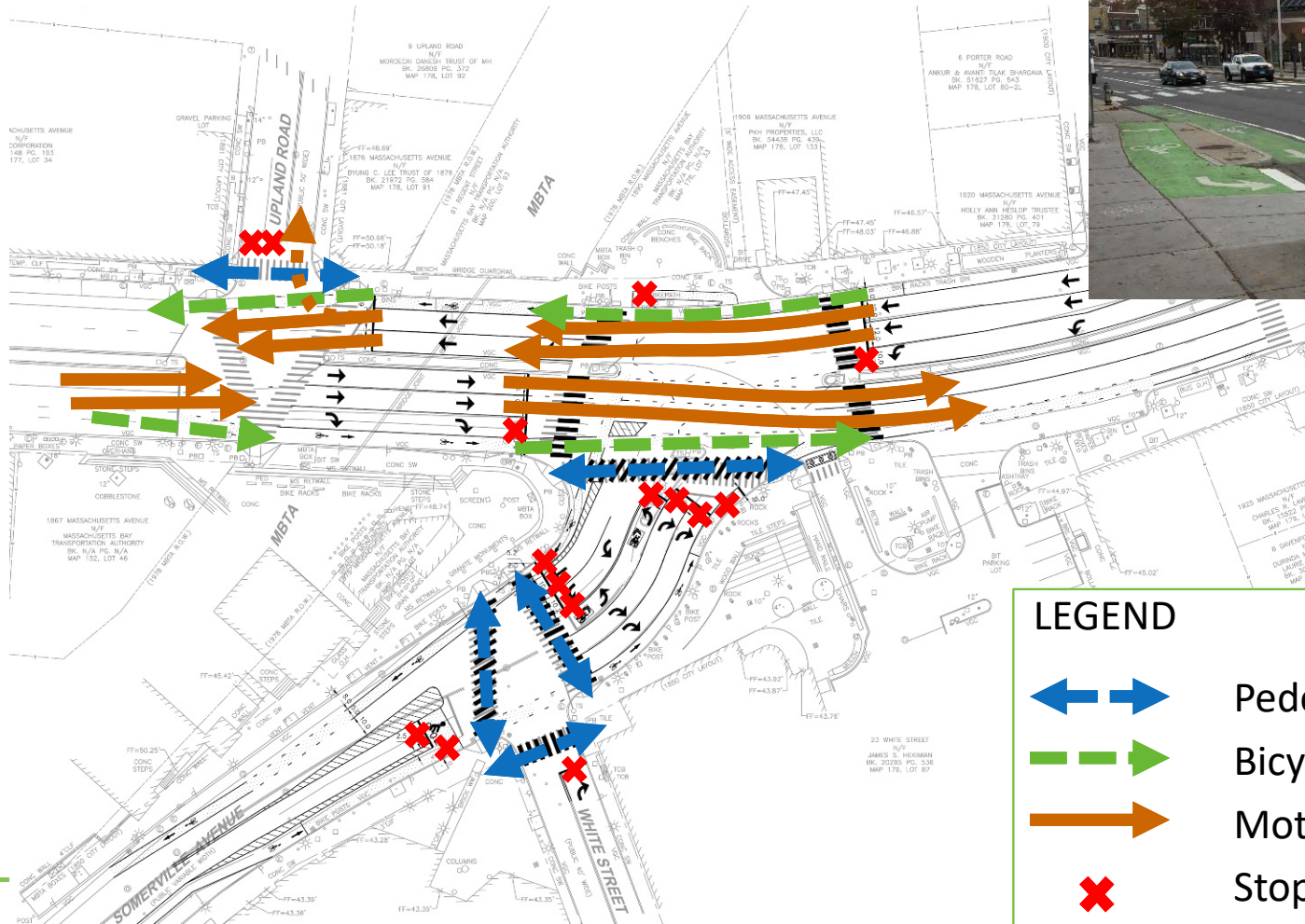
Existing Conditions



Proposed Design



Proposed Design – Phase 1

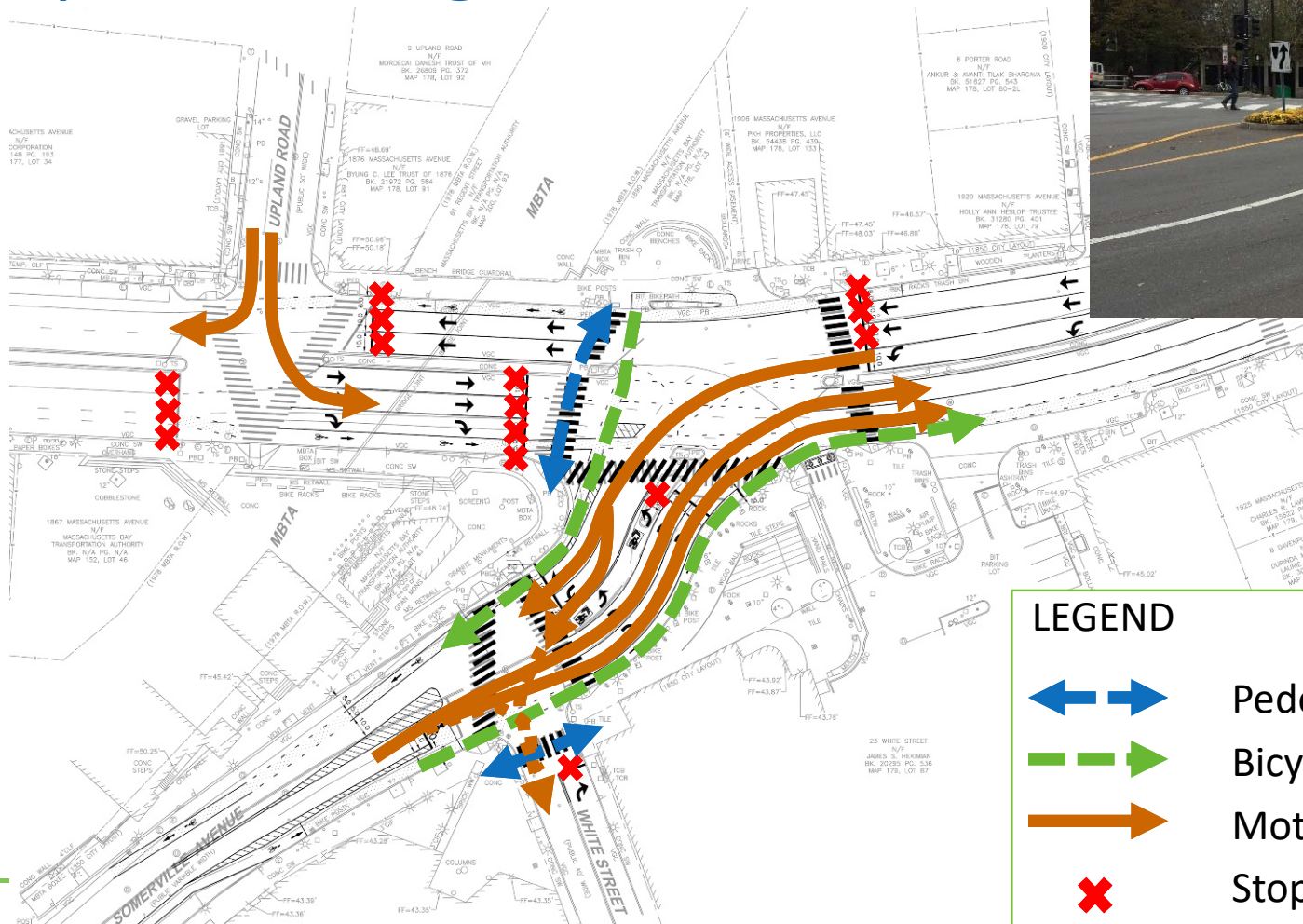


LEGEND

-  Pedestrian
-  Bicycle
-  Motor Vehicle
-  Stopped



Proposed Design – Phase 2

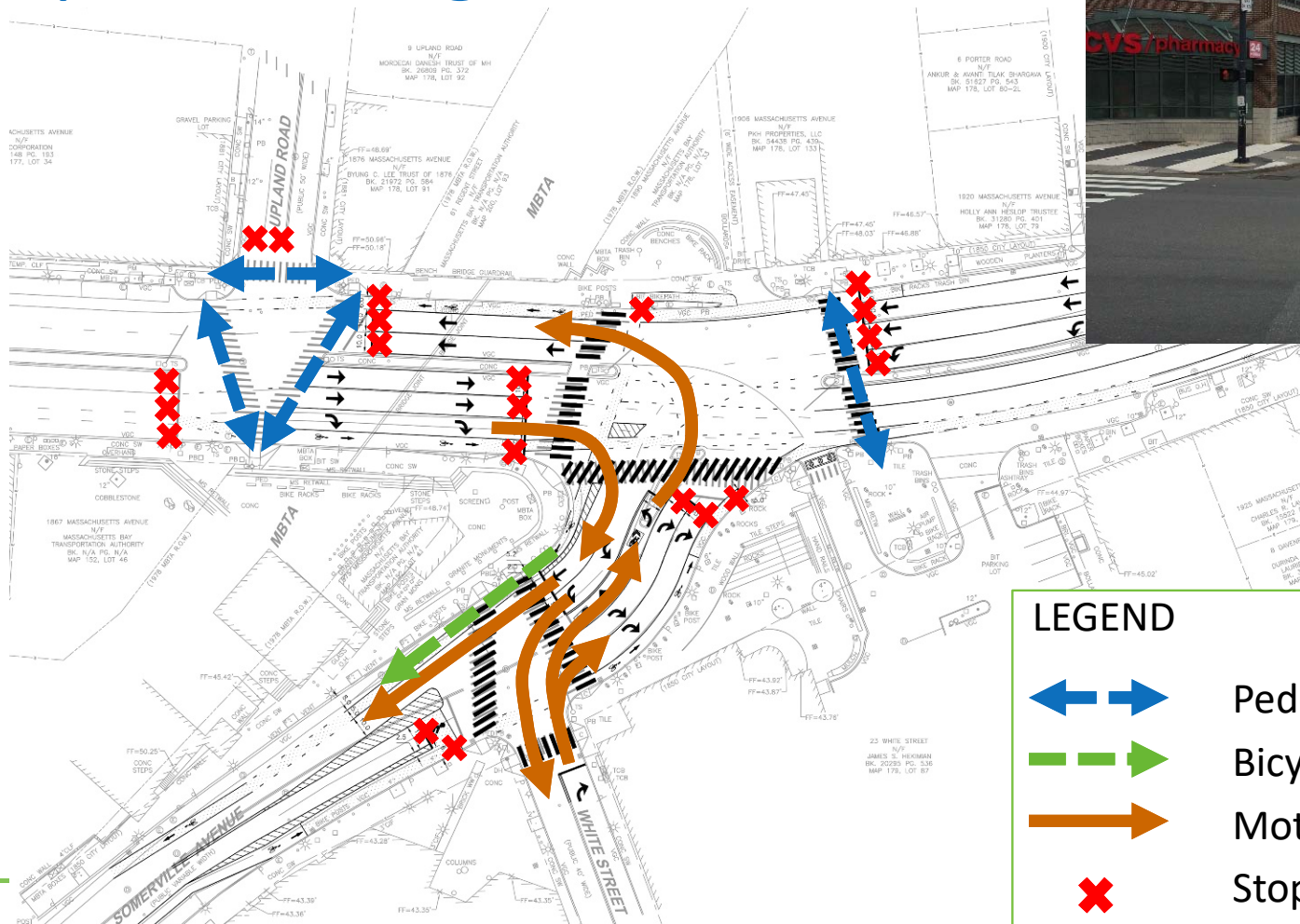


LEGEND

-  Pedestrian
-  Bicycle
-  Motor Vehicle
-  Stopped



Proposed Design – Phase 3



LEGEND

Pedestrian

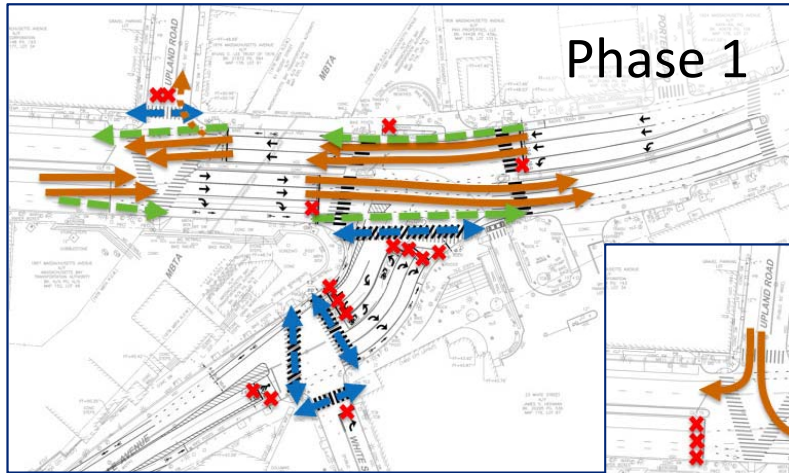
Bicycle

Motor Vehicle

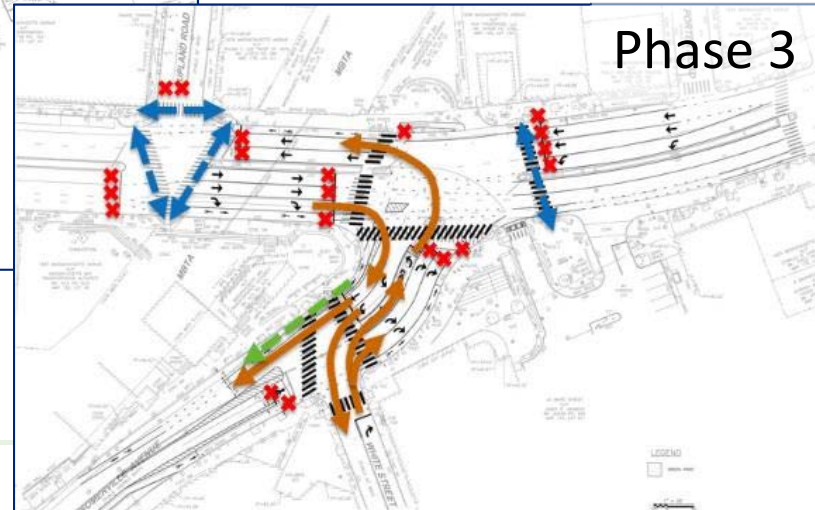
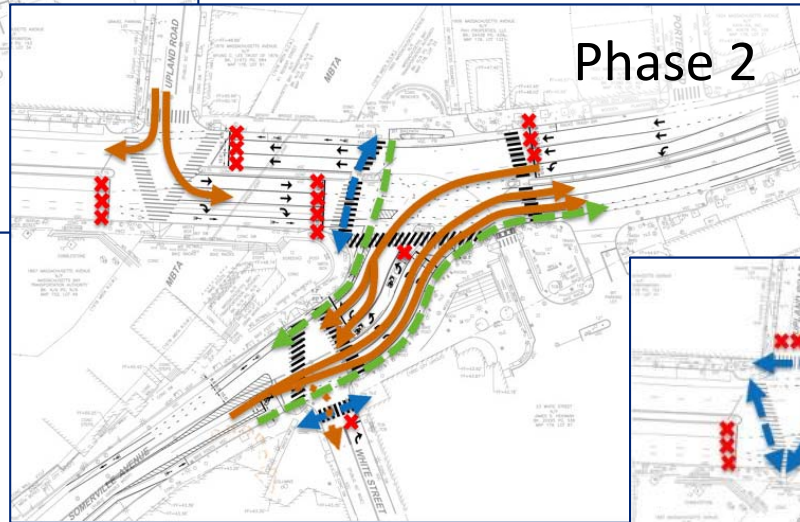
Stopped



Proposed Signal Cycle – All Phases



- Pedestrian Crossing Time Approximately 25 – 35 sec



LEGEND

- ↔ Pedestrian
- Bicycle
- Motor Vehicle
- × Stopped

Key Design Changes – Mass Ave Southbound

EXISTING



PROPOSED

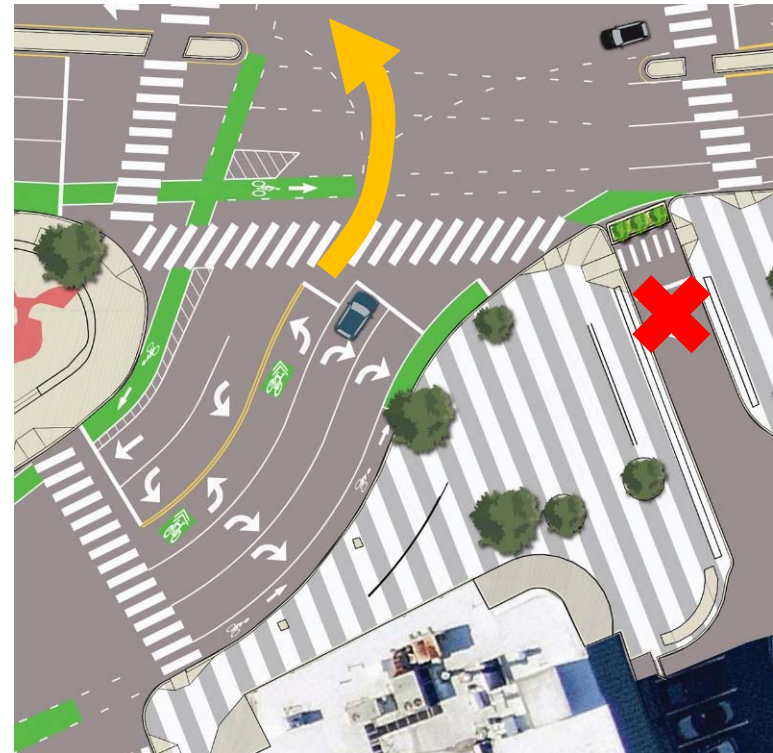


Key Design Changes – Left Turn to Mass Ave SB

EXISTING

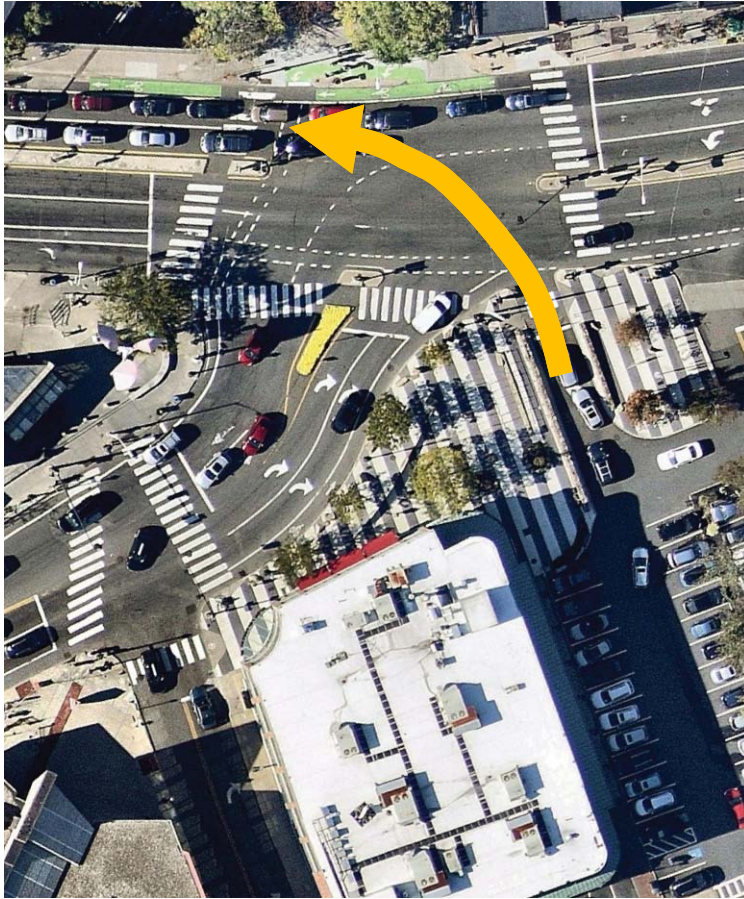


PROPOSED

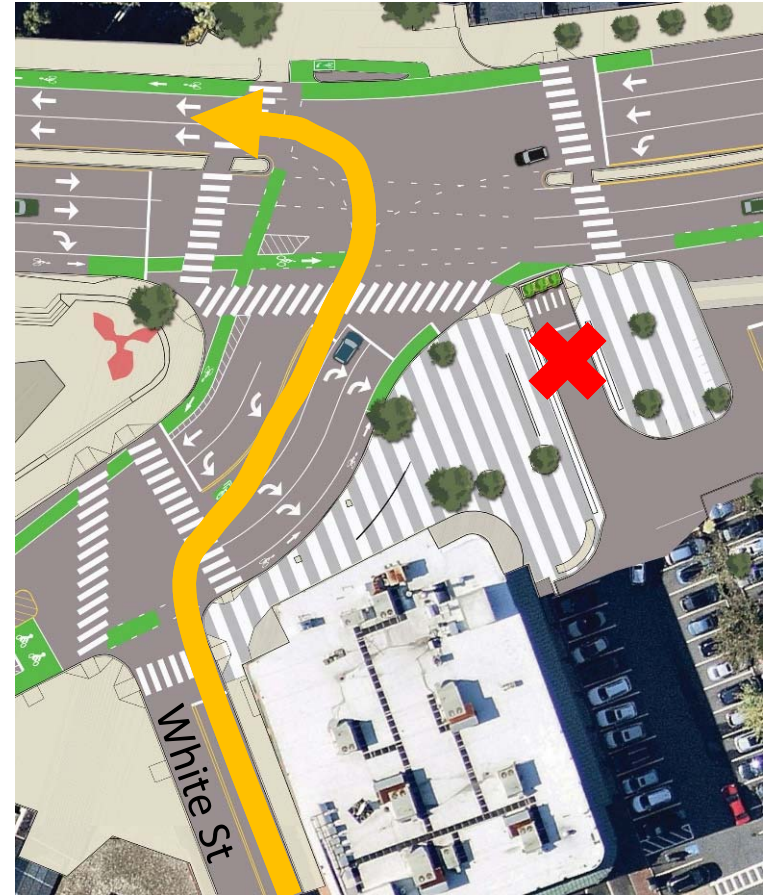


Key Design Changes – Shopping Center Egress

EXISTING



PROPOSED



Key Design Changes – Bus Priority



Community Feedback - Proposed Design



Community Feedback - Existing



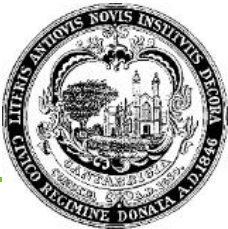
Porter Square Intersection Improvements

Community Meeting

January 18, 2018



**CDM
Smith**



CAMBRIDGE
CDD@344

CAMBRIDGE
DEPARTMENT
OF PUBLIC
**THE
WORKS**

